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**Montana Fish,  
Wildlife & Parks**

# MONTANA ANIMAL SPECIES OF CONCERN

JULY 2009

## INTRODUCTION

This report is produced jointly by the Montana Natural Heritage Program (MTNHP) and Montana Department of Fish, Wildlife, and Parks (MFWP). **Montana Animal Species of Concern** are native Montana animals that are considered to be “at risk” due to declining population trends, threats to their habitats, and/or restricted distribution. Also included in this report are **Potential Animal Species of Concern** -- animals for which current, often limited, information suggests potential vulnerability or for which additional data are needed before an accurate status assessment can be made. Over the last 200 years, 5 species with historic breeding ranges in Montana have been extirpated from the state; Woodland Caribou (*Rangifer tarandus*), Greater Prairie-Chicken (*Tympanuchus cupido*), Passenger Pigeon (*Ectopistes migratorius*), Pilose Crayfish (*Pacifastacus gambelii*), and Rocky Mountain Locust (*Melanoplus spretus*). Designation as a Montana Animal Species of Concern or Potential Animal Species of Concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and decision-makers to make proactive decisions regarding species conservation and data collection priorities in order to avoid additional extirpations.

Status determinations are made by MTNHP and MFWP biologists in consultation with representatives of the Montana Chapter of the Wildlife Society, the Montana Chapter of the American Fisheries Society and other experts. The process for evaluating and assigning status designations uses the Natural Heritage Program ranking system, described below, which forms the basis for identifying Montana Species of Concern.

## UPDATES IN THIS REPORT

This report identifies 128 vertebrate and 83 invertebrate Species of Concern (SOC). Another 32 vertebrates and 51 invertebrates are identified as Potential Species of Concern (PSOC). See the animal group summary table below for totals by animal group. The focus of this review was to evaluate 83 bird species that had previously not been reviewed with the NatureServe ranking criteria and were on the previous Species of Concern List, listed as of concern on other conservation lists, or for which a review was requested. Three species included on the 2008 SOC report (Barn Owl (*Tyto alba*), Lark Bunting (*Calamospiza melanocorys*), and Olive-sided Flycatcher (*Contopus cooperi*)) and 4 species included on the 2008 PSOC report (American Three-toed Woodpecker (*Picoides dorsalis*), Baltimore Oriole (*Icterus galbula*), Orchard Oriole (*Icterus spurius*), and Williamson’s Sapsucker (*Sphyrapicus thyroideus*)) have been dropped entirely as a result of increasing or stable trends or a reduction in recognized threats. For similar reasons, 7 species have been downgraded from SOC to PSOC status Black-and-white Warbler (*Mniotilta varia*), Broad-tailed Hummingbird (*Selasphorus platycercus*), Cassin’s Kingbird (*Tyrannus vociferans*), Dickcissel (*Spiza americana*), Eastern Bluebird (*Sialia sialis*), Northern Hawk Owl (*Surnia ulula*), and Northern Leopard Frog (*Rana pipiens*) populations on the Great Plains.

Ten vertebrate and 1 invertebrate species, 7 of which were previously classified as PSOC, were added as new Species of Concern based on declining population trends and/or ongoing threats to habitats that are likely to lead

### SPECIES TOTALS BY ANIMAL GROUP Species of Concern

|                    |               |
|--------------------|---------------|
| Mammals.....       | 30 (29%)      |
| Birds.....         | 64 (21%)      |
| Reptiles.....      | 9 (53%)       |
| Amphibians.....    | 6 (46%)       |
| Fish.....          | 19 (31%)      |
| Invertebrates..... | 83 (unknown%) |

### Potential Species of Concern

|                    |               |
|--------------------|---------------|
| Mammals.....       | 7 (7%)        |
| Birds.....         | 18 (6%)       |
| Fish.....          | 8 (13%)       |
| Invertebrates..... | 51 (unknown%) |

### HABITAT ASSOCIATION SUMMARY FOR ALL SPECIES OF CONCERN AND POTENTIAL SPECIES OF CONCERN

|                            |     |
|----------------------------|-----|
| Streams/Rivers/Lakes ..... | 29% |
| Wetlands.....              | 20% |
| Sagebrush/Grassland.....   | 14% |
| Conifer Forest .....       | 13% |
| Riparian Forest.....       | 6%  |
| Alpine.....                | 5%  |
| Other/Generalist.....      | 5%  |
| Rock Outcrop.....          | 5%  |
| Caves.....                 | 3%  |

to population declines; Black-billed Cuckoo (*Coccyzus erythrophthalmus*), Black-necked Stilt (*Himantopus mexicanus*), Brown Creeper (*Certhia americana*), Golden Eagle (*Aquila chrysaetos*), Great Blue Heron (*Ardea herodias*), Horned Grebe (*Podiceps auritus*), Northern Goshawk (*Accipiter gentilis*), Pileated Woodpecker (*Dryocopus pileatus*), Veery (*Catharus fuscescens*), Winter Wren (*Troglodytes troglodytes*), and a Northern Rocky Mountain Refugium Stonefly (*Soyedina potteri*). Barrow's Goldeneye (*Bucephala islandica*) and Hooded Merganser (*Lophodytes cucullatus*) were added as Potential Species of Concern due to uncertainty about their population status in the face of declining quality of, and threats to, riparian habitats. A number of invertebrate groups (e.g., earthworms, centipedes, spiders) deserve a focused review of their status, but due to the amount of time required, systematic reviews of the status of these groups will have to be dealt with in future updates.

In addition to these deletions and additions, global or state ranks were downgraded (decreased risk) for 26 species and upgraded (increased risk) for 3 species that remained on the SOC and PSOC report; noted in bold on each list. These changes were largely a result of more consistent scoring with the NatureServe ranking criteria, but also resulted from a better understanding of their state and global status.

In order to make this report more useful, we have added habitat associations for each species. Tables on the front and back pages summarize the percentage of SOC and PSOC animals that depend on major habitat types to assist managers in conserving habitats, rather than individual species.

This report also includes notes indicating whether a species has  $\geq 20\%$  of their current global breeding range in Montana, making their conservation in Montana of global significance, and if a species has a limited breeding distribution in Montana ( $\leq 5\%$  of the state), making conservation efforts in the areas where they do occur more important to their conservation within Montana.

## HERITAGE PROGRAM RANKS

The international network of Natural Heritage Programs employs a standardized ranking system to denote global and state status. Each species is given a global (G) rank, denoting range-wide status, and a state (S) rank for its status in Montana. Status ranks range from 1 (greatest concern) to 5 (least concern). Global ranks are assigned by scientists at NatureServe (the international affiliate organization for the heritage network) in consultation with biologists in the natural heritage programs and other taxonomic experts. State ranks are determined jointly by MTNHP and MFWP biologists, in consultation with the Montana Chapter of the Wildlife Society, the Montana Chapter of the American Fisheries Society and other experts.

Among other things, the combination of global and state ranks often helps describe the proportion of a species' range and/or total population occurring in Montana. For instance, a rank of G3 S3 often indicates that Montana comprises most or a very significant portion of an animal's total population. In contrast, an animal ranked G5 S1 often occurs in Montana at the periphery of its much larger range; thus, the state supports a relatively small portion of its total population.

## What Species are Included in this Report

Montana Species of Concern are defined as vertebrate animals with a state rank of S1, S2, or S3. Vertebrate species with a rank indicating uncertainty (SU) or a "range rank" extending below the S3 cutoff (e.g., S3S4) are considered Potential Species of Concern.

Because documentation for invertebrates is typically less complete than for vertebrates, only those ranked S1 or S2 are included as SOC. Invertebrates with a range rank extending below S2 (e.g., S2S3) are included as SOC only if their global ranks are G2G3 or G3, or if experts agree their occurrence in Montana has been adequately documented. Other invertebrates of concern with global ranks other than G1, G2, or G3 and with state ranks below S2 or range ranks extending below S2 (e.g., S3S4) are treated as Potential Species of Concern.

## How Species are Ranked

In 2004 we began implementing a more rigorous methodology with more consistent and quantifiable criteria to assign status ranks. The goal is to improve the accuracy of ranks and better document the basis for each rank. A more rigorous and well-documented ranking procedure is important to a variety of agencies with responsibilities to manage wildlife populations.

This approach to assessing species' status is based on methods developed by NatureServe (Regan et al. 2004). These criteria include population size, area of occupancy in Montana, short and long-term trends, threats, inherent vulnerability, and specificity to environment. Based on these factors, a preliminary rank is calculated and is reviewed by key experts.

It is important to note that while the ranking process has changed, the definitions and the fundamental criteria remain the same. The principle difference is that criteria are now being applied in a more rigorous and consistent manner. Detailed documentation of the criteria and assessment process are available on the MTNHP website at [http://mtnhp.org/animal/2004\\_SOC\\_Criteria.pdf](http://mtnhp.org/animal/2004_SOC_Criteria.pdf).

### ***Definitions of Ranks used in this Report***

- G1 / S1 At high risk because of extremely limited and/or rapidly declining numbers, range, and/or habitat, making it highly vulnerable to global extinction or extirpation in the state.
- G2 / S2 At risk because of very limited and/or declining numbers, range, and/or habitat, making it vulnerable to global extinction or extirpation in the state.
- G3 / S3 Potentially at risk because of limited and/or declining numbers, range, and/or habitat, even though it may be abundant in some areas.
- G4 / S4 Uncommon but not rare (although it may be rare in parts of its range), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern.
- G5 / S5 Common, widespread, and abundant (although it may be rare in parts of its range). Not vulnerable in most of its range.
- GU / SU Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
- GH / SH Historically occurred; may be rediscovered.
- GX / SX Presumed to be extinct or extirpated from Montana; historical records only.

### ***Other codes and rank modifiers:***

- B State rank modifier indicating breeding for a migratory species: B = Breeding
- HYB A global rank denoting a hybrid.
- M A state rank modifier indicating migratory stop over status for a species.
- N A state rank modifier referring to a non-breeding population of the species. N = Non-breeding
- Q A global rank modifier indicating there are taxonomic questions or problems.
- T Denotes the rank for a subspecific taxon (subspecies or population); appended to the global rank for the full species. The S Rank following applies to the subspecific taxon.

## **HOW TO READ THIS REPORT**

Species are listed alphabetically by common name within major groups, which are organized in taxonomic order from mammals to invertebrates. Species with names **bolded and underlined** are new additions to the Species of Concern or

Potential Species of Concern report. Species downgraded from Concern to Potential Concern are not shown as new. Global or state ranks are **bolded and underlined** if they have changed from the previous report.

Current federal agency status designations are also provided, including legal status under the U.S. Endangered Species Act, and administrative designations of the U.S. Forest Service and Bureau of Land Management. Conservation and inventory status of species in Montana's Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005) are also provided.

### ***Federal Status Designations***

#### **FISH AND WILDLIFE SERVICE**

This column indicates status under the federal Endangered Species Act of 1973 based on categories defined by the U.S. Fish and Wildlife Service (16 U.S.C.A. §1531-1543 (Supp. 1996)).

|    |   |
|----|---|
| E  | Listed Endangered   |
| T  | Listed Threatened   |
| PE | Proposed Endangered   |
| PT | Proposed Threatened   |
| XN | Experimental Nonessential   |
| C  | Candidate (species for which the U.S. Fish and Wildlife Service has sufficient information on biological status and threats to propose listing as threatened or endangered) |
| DM | Recovered, delisted, and now being monitored  |

#### **FOREST SERVICE**

The U.S. Forest Service Manual (2670.22) defines Sensitive species on Forest Service lands as those for which population viability is a concern as evidenced by significant downward trend in population or a significant downward trend in habitat capacity. The Regional Forester (Northern Region) designates Sensitive species on National Forests in Montana. These designations were last updated in 2004 and they apply only on USFS-administered lands.

Note: The U.S. Forest Service is implementing new planning regulations (2005) which will lead to changes in the identification of "special status" species on National Forest lands. For the time being, Sensitive species will continue to be recognized for Region 1 under existing agency policy, but in addition many of the newly revised Forest Plans may also identify USFS Species of Concern and USFS Species of Interest as outlined below. During this transition period, a "USFS" designation in the federal status column refers to the status under the existing Sensitive Species policy.

USFS Species-of-Concern (FSH 1909.12, 43.22b) are species for which the Responsible Official determines management actions may be necessary to prevent listing under the Endangered Species Act (ESA). The Responsible

Official, as appropriate, may identify the following plant and animal species, including macro-lichens, as species-of-concern:

1. Species identified as proposed and candidate species under the ESA.
2. Species with ranks of G-1 through G-3 on the NatureServe ranking system.
3. Intraspecific (subspecific) taxa with ranks of T-1 through T-3 on the NatureServe ranking system.
4. Species that have been petitioned for federal listing and for which a positive “90-day finding” has been made (a 90-day finding is a preliminary finding that substantive information was provided indicating that the petition listing may be warranted and a full status review will be conducted).
5. Species that have been recently delisted (these include species delisted within the past five years and other delisted species for which regulatory agency monitoring is still considered necessary).

USFS Species-of-Interest (FSH 1909.12, 43.22c) are species for which the Responsible Official determines that management actions may be necessary or desirable to achieve ecological or other multiple-use objectives. The Responsible Official may review the following sources for potential species-of-interest:

1. Species with ranks of S-1, S-2, N1, or N2 on the NatureServe ranking system.
2. State listed threatened and endangered species that do not meet the criteria as species-of-concern.
3. Species identified as species of conservation concern in State Comprehensive Wildlife Strategies.
4. Bird species on the U.S. Fish and Wildlife Service Birds of Conservation Concern National Priority list (for the U.S. portion of the northern Rockies that occur in National Forest system lands).
5. Additional species that valid existing information indicates are of regional or local conservation concern (this includes all Forest Service Northern Region sensitive species) due to factors that may include:
  - a. Significant threats to populations or habitat.
  - b. Declining trends in populations or habitat.
  - c. Rarity
  - d. Restricted ranges (for example, narrow endemics, disjunct populations, or species at the edge of their range).
6. Species that are hunted or fished and other species of public interest. Invasive species may also be considered.

#### **BUREAU OF LAND MANAGEMENT**

BLM Sensitive Species are defined by the BLM 6840 Manual as those that normally occur on Bureau

administered lands for which BLM has the capability to significantly affect the conservation status of the species through management. Such species should be managed to the level of protection required by State laws or under the BLM policy for candidate species, whichever would provide better opportunity for its conservation. The State Director may designate additional categories of special status species as appropriate and applicable to his or her state’s needs. The sensitive species designation, for species other than federally listed, proposed, or candidate species, may include such native species as those that:

1. could become endangered in or extirpated from a state, or within a significant portion of its distribution in the foreseeable future,
2. are under status review by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service,
3. are undergoing significant current or predicted downward trends in habitat capability that would reduce a species’ existing distribution,
4. are undergoing significant current or predicted downward trends in population or density such that federally listed, proposed, candidate, or State listed status may become necessary,
5. have typically small and widely dispersed populations,
6. are inhabiting ecological refugia, specialized or unique habitats, or
7. are State listed but which may be better conserved through application of BLM sensitive species status.

#### **MONTANA FISH, WILDLIFE, AND PARKS CFWCS TIER**

Montana’s Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005) identifies fish and wildlife species that are in greatest need of conservation as follows:

- Tier I: Greatest conservation need. Montana Fish, Wildlife & Parks has a clear obligation to use its resources to implement conservation actions that provide direct benefit to these species, communities, and focus areas.
- Tier II: Moderate conservation need. Montana Fish, Wildlife & Parks could use its resources to implement conservation actions that provide direct benefit to these species, communities, and focus areas.
- Tier III: Lower conservation need. Although important to Montana’s wildlife diversity, these species, communities, and focus areas are either abundant and widespread or are believed to have adequate conservation already in place.
- Tier IV: Species that are non-native, incidental, or on the periphery of their range and are either expanding or very common in adjacent states.



The Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005) also identifies individual species and taxonomic groups that are in need of inventory.

Each species' conservation and inventory tiering status is indicated in roman numerals before and after a dash, respectively.

### ADDITIONAL INFORMATION

Our internet-based *Montana Field Guide* provides information on over 700 vertebrate and 1,100 invertebrate animal species, including Species of Concern and Potential Species of Concern. The Field Guide offers a broad range of information, including species identification, range, habitat, reproduction, food habits, ecology, management, and references. For many Species of Concern, the Field Guide provides extensive detailed information from the databases of MTNHP. For other species, we are still in the process of compiling such information. Photos and call recordings are provided where available. The Field Guide can be accessed at <http://fieldguide.mt.gov/> or through the Natural Heritage Program or Montana Fish, Wildlife, and Parks home pages.

Information on the over 710,000 animal observations in the Montana Natural Heritage Program's statewide databases can be accessed in the context of various statewide map layers via the Natural Heritage Program's **TRACKER** website at: <http://nhp.nris.state.mt.us/Tracker/NHTMap.aspx>. We also encourage the submission of new animal observations via this website.

The NatureServe Explorer website provides information on the status of species throughout North America. It can be found at <http://natureserve.org/explorer> or from a link on the MTNHP website. This application includes status maps showing the state/provincial ranks across each species' range, assembled from the network of natural heritage programs. Note that updated ranks for Montana animals will not be immediately reflected in NatureServe Explorer since this information is only exchanged on an annual basis.

More detailed data on the occurrence of Montana Species of Concern are available on request from MTNHP, using the "Request Data" link on the website or by contacting appropriate staff.

This report is available in printable electronic format on the MTNHP website under "Reports." Hard copies are available on request from MTNHP or from MFWP (see contact information on back cover).

### Comments and Feedback

We welcome comments and suggestions, including recommendations for changes in species' status and new observation data. All comments and information should be directed to the MTNHP Senior Zoologist, Bryce Maxell, at

[bmaxell@mt.gov](mailto:bmaxell@mt.gov) or at the address below. Please submit animal observations via the TRACKER website at: <http://nhp.nris.state.mt.us/Tracker/NHTMap.aspx>

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# SPECIES OF CONCERN

## Vertebrates

| Common Name                         | Scientific Name                | Global Rank | State Rank | Federal Status             | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                              |
|-------------------------------------|--------------------------------|-------------|------------|----------------------------|---------------------------|-------------------------|--------------------------------------|
| <b>Mammals</b>                      |                                |             |            |                            |                           |                         |                                      |
| American Bison (free-ranging herds) | <i>Bos bison</i>               | G4          | S2         |                            | I - III                   | ≤ 5% state              | grasslands                           |
| Arctic Shrew                        | <i>Sorex arcticus</i>          | G5          | S1S3       |                            | II - I                    | ≤ 5% state              | wetlands                             |
| Black-footed Ferret                 | <i>Mustela nigripes</i>        | G1          | S1         | USFWS - E, XN              | I - III                   | ≤ 5% state              | grasslands                           |
| Black-tailed Jack Rabbit            | <i>Lepus californicus</i>      | G5          | S2         |                            | II - I                    | ≤ 5% state              | sagebrush/grasslands                 |
| Black-tailed Prairie Dog            | <i>Cynomys ludovicianus</i>    | G4          | S3         | USFS, BLM                  | I - III                   |                         | grasslands                           |
| Canada Lynx                         | <i>Lynx canadensis</i>         | G5          | S3         | USFWS - T                  | I - III                   |                         | subalpine conifer forests            |
| Dwarf Shrew                         | <i>Sorex nanus</i>             | G4          | S2S3       |                            | II - II                   |                         | rocky habitats                       |
| Eastern Red Bat                     | <i>Lasiurus borealis</i>       | G5          | S2S3       |                            | II - I                    |                         | riparian cottonwoods                 |
| Fisher                              | <i>Martes pennanti</i>         | G5          | S3         | USFS                       | II - II                   |                         | mixed conifer forests                |
| Fringed Myotis                      | <i>Myotis thysanodes</i>       | G4G5        | S3         | BLM                        | II - II                   |                         | riparian & dry mixed conifer forests |
| Gray Wolf                           | <i>Canis lupus</i>             | G4          | S3         | USFWS - DM, BLM            | I - III                   |                         | generalist                           |
| Great Basin Pocket Mouse            | <i>Perognathus parvus</i>      | G5          | S2S3       | USFS, BLM                  | I - II                    | ≤ 5% state              | sagebrush/grasslands                 |
| Grizzly Bear                        | <i>Ursus arctos</i>            | G4          | S2S3       | USFWS - T (N), DM (S), BLM | I - III                   |                         | generalist                           |
| Hispid Pocket Mouse                 | <i>Chaetodipus hispidus</i>    | G5          | S1S3       |                            | II - I                    | ≤ 5% state              | grasslands                           |
| Hoary Bat                           | <i>Lasiurus cinereus</i>       | G5          | S3         |                            | II - II                   |                         | riparian and forest habitats         |
| Meadow Jumping Mouse                | <i>Zapus hudsonius</i>         | G5          | S2         | BLM                        | I - I                     |                         | wetlands                             |
| Merriam's Shrew                     | <i>Sorex merriami</i>          | G5          | S3         |                            | II - II                   |                         | sagebrush/grasslands                 |
| Northern Bog Lemming                | <i>Synaptomys borealis</i>     | G4          | S2         | USFS                       | I - I                     |                         | wetlands                             |
| Northern Myotis                     | <i>Myotis septentrionalis</i>  | G4          | S2S3       | BLM                        | II - I                    |                         | riparian & mixed forest types        |
| Northern Short-tailed Shrew         | <i>Blarina brevicauda</i>      | G5          | S1S3       |                            | IV - III                  | ≤ 5% state              | wetlands                             |
| Pallid Bat                          | <i>Antrozous pallidus</i>      | G5          | S2         | USFS, BLM                  | I - I                     |                         | arid land rock outcrops              |
| Preble's Shrew                      | <i>Sorex preblei</i>           | G4          | S3         |                            | II - II                   | ≥ 20% global            | sagebrush/grasslands                 |
| Pygmy Rabbit                        | <i>Brachylagus idahoensis</i>  | G4          | S3         | USFS, BLM                  | I - II                    | ≤ 5% state              | sagebrush                            |
| Spotted Bat                         | <i>Euderma maculatum</i>       | G4          | S2         | USFS, BLM                  | I - I                     |                         | arid land rock outcrops              |
| Swift Fox                           | <i>Vulpes velox</i>            | G3          | S3         | BLM                        | II - II                   |                         | grasslands                           |
| Townsend's Big-eared Bat            | <i>Corynorhinus townsendii</i> | G4          | S2         | USFS, BLM                  | I - I                     |                         | caves in forested habitats           |
| Uinta Chipmunk                      | <i>Tamias umbrinus</i>         | G5          | S3         |                            | II - I                    |                         | high elevation conifer forests       |
| Western Spotted Skunk               | <i>Spilogale gracilis</i>      | G5          | S1S3       |                            | II - I                    |                         | rock outcrops, shrublands/woodlands  |
| White-tailed Prairie Dog            | <i>Cynomys leucurus</i>        | G4          | S1         | USFS, BLM                  | I - III                   | ≤ 5% state              | sagebrush/grasslands                 |
| Wolverine                           | <i>Gulo gulo</i>               | G4          | S3         | USFS, BLM                  | II - III                  |                         | conifer forests                      |
| <b>Birds</b>                        |                                |             |            |                            |                           |                         |                                      |
| Alder Flycatcher                    | <i>Empidonax alnorum</i>       | G5          | <b>S3B</b> |                            | II - I                    | ≤ 5% state              | wetlands/shrublands                  |
| American Bittern                    | <i>Botaurus lentiginosus</i>   | G4          | S3B        |                            | II - I                    |                         | wetlands                             |

<sup>1</sup> Conservation Tier - Inventory Tier    <sup>2</sup> ≤ 5% state = species' current breeding range occupies ≤ 5% of Montana; and ≥ 20% global = ≥ 20% of species' current global breeding range is in Montana

| Common Name                      | Scientific Name                  | Global Rank | State Rank            | Federal Status  | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                             |
|----------------------------------|----------------------------------|-------------|-----------------------|-----------------|---------------------------|-------------------------|-------------------------------------|
| <b>Birds (continued)</b>         |                                  |             |                       |                 |                           |                         |                                     |
| American White Pelican           | <i>Pelecanus erythrorhynchos</i> | <b>G4</b>   | S3B                   |                 | III - III                 | ≤ 5% state              | lakes                               |
| Baird's Sparrow                  | <i>Ammodramus bairdii</i>        | G4          | <b>S3B</b>            | BLM             | II - III                  | ≥ 20% global            | grasslands                          |
| Bald Eagle                       | <i>Haliaeetus leucocephalus</i>  | G5          | S3                    | USFWS - DM, BLM | I - III                   |                         | riparian forest                     |
| Black Rosy-Finch                 | <i>Leucosticte atrata</i>        | G4          | S2                    |                 | II - I                    | ≥ 20% global            | alpine                              |
| Black Swift                      | <i>Cypseloides niger</i>         | G4          | <b>S1B</b>            |                 | II - I                    |                         | cliffs/waterfalls                   |
| Black Tern                       | <i>Chlidonias niger</i>          | G4          | S3B                   | BLM             | I - II                    |                         | wetlands                            |
| Black-backed Woodpecker          | <i>Picoides arcticus</i>         | G5          | <b>S3</b>             | USFS, BLM       | I - III                   |                         | conifer forest burns                |
| Black-billed Cuckoo              | <i>Coccyzus erythrophthalmus</i> | G5          | <b>S3B</b>            |                 | II - I                    |                         | prairie riparian forests            |
| Black-crowned Night-heron        | <i>Nycticorax nycticorax</i>     | G5          | S3B                   | BLM             | II - I                    |                         | wetland/lake w/ emergent vegetation |
| Black-necked Stilt               | <i>Himantopus mexicanus</i>      | G5          | <b>S3B</b>            |                 | III - II                  |                         | wetlands                            |
| Blue-gray Gnatcatcher            | <i>Polioptila caerulea</i>       | G5          | <b>S2B</b>            | USFS, BLM       | II - I                    | ≤ 5% state              | utah juniper                        |
| Bobolink                         | <i>Dolichonyx oryzivorus</i>     | G5          | <b>S3B</b>            | BLM             | III - III                 |                         | moist grasslands                    |
| Boreal Chickadee                 | <i>Poecile hudsonica</i>         | G5          | <b>S3</b>             |                 | II - II                   |                         | spruce fir forests                  |
| Brewer's Sparrow                 | <i>Spizella breweri</i>          | G5          | <b>S3B</b>            | BLM             | II - III                  |                         | sagebrush                           |
| <b>Brown Creeper</b>             | <i>Certhia americana</i>         | G5          | S3                    |                 | II - II                   |                         | mixed conifer forests               |
| Burrowing Owl                    | <i>Athene cunicularia</i>        | G4          | <b>S3B</b>            | USFS, BLM       | I - III                   |                         | grasslands                          |
| Caspian Tern                     | <i>Hydroprogne caspia</i>        | G5          | S2B                   |                 | II - II                   | ≤ 5% state              | large rivers and lakes              |
| Cassin's Finch                   | <i>Carpodacus cassinii</i>       | G5          | S3                    |                 | II - III                  |                         | conifer forest                      |
| Chestnut-collared Longspur       | <i>Calcarius ornatus</i>         | G5          | <b>S2B</b>            | BLM             | III - III                 | ≥ 20% global            | grasslands                          |
| Clark's Grebe                    | <i>Aechmophorus clarkii</i>      | G5          | S3B                   |                 | III - II                  | ≤ 5% state              | large lakes                         |
| Clark's Nutcracker               | <i>Nucifraga columbiana</i>      | G5          | S3                    |                 | III - III                 |                         | conifer forest                      |
| Common Loon                      | <i>Gavia immer</i>               | G5          | <b>S3B</b>            | USFS, BLM       | I - III                   |                         | mountain lakes w/ emergent veg.     |
| Common Tern                      | <i>Sterna hirundo</i>            | G5          | S3B                   |                 | II - II                   |                         | large rivers and lakes              |
| Ferruginous Hawk                 | <i>Buteo regalis</i>             | G4          | S3B                   | BLM             | II - III                  |                         | sagebrush/grasslands                |
| Flammulated Owl                  | <i>Otus flammeolus</i>           | G4          | S3B                   | USFS, BLM       | I - III                   |                         | conifer forest                      |
| Forster's Tern                   | <i>Sterna forsteri</i>           | G5          | <b>S3B</b>            |                 | II - II                   |                         | wetlands                            |
| Franklin's Gull                  | <i>Larus pipixcan</i>            | G4G5        | S3B                   | BLM             | II - II                   |                         | wetland/lake w/ emergent vegetation |
| Golden Eagle                     | <i>Aquila chrysaetos</i>         | G5          | <b>S3</b>             | BLM             | II - III                  |                         | generalist                          |
| Grasshopper Sparrow              | <i>Ammodramus savannarum</i>     | G5          | S3B                   |                 | II - III                  |                         | grasslands                          |
| Gray-crowned Rosy-Finch          | <i>Leucosticte tephrocotis</i>   | G5          | S2B, S5N <sup>3</sup> |                 | II - II                   |                         | alpine                              |
| Great Blue Heron                 | <i>Ardea herodias</i>            | G5          | <b>S3</b>             |                 | III - III                 |                         | riparian woodlands                  |
| Great Gray Owl                   | <i>Strix nebulosa</i>            | G5          | S3                    | BLM             | II - III                  |                         | conifer forest                      |
| Greater Sage-Grouse              | <i>Centrocercus urophasianus</i> | G4          | <b>S2</b>             | USFS, BLM       | I - III                   |                         | sagebrush                           |
| Harlequin Duck                   | <i>Histrionicus histrionicus</i> | G4          | S2B                   | USFS, BLM       | I - III                   |                         | mountain streams                    |
| Horned Grebe                     | <i>Podiceps auritus</i>          | G5          | <b>S3B</b>            |                 | II - II                   |                         | Lakes and wetlands                  |
| Least Tern (Interior population) | <i>Sternula antillarum</i>       | G4          | S1B                   | USFWS - E       | I - III                   |                         | large prairie rivers                |

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| Common Name                     | Scientific Name                             | Global Rank | State Rank | Federal Status           | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                             |
|---------------------------------|---|-------------|------------|--------------------------|---------------------------|-------------------------|-------------------------------------|
| <b>Birds (continued)</b>        |   |             |            |                          |                           |                         |                                     |
| Le Conte's Sparrow              | <i>Ammodramus leconteii</i>                 | G4          | S3B        | BLM                      | II - I                    |                         | prairie wetlands                    |
| Lewis's Woodpecker              | <i>Melanerpes lewis</i>                     | G4          | S2B        |                          | II - II                   |                         | riparian forest                     |
| Loggerhead Shrike               | <i>Lanius ludovicianus</i>                  | G4          | S3B        | BLM                      | II - II                   |                         | shrublands                          |
| Long-billed Curlew              | <i>Numenius americanus</i>                  | G5          | <b>S3B</b> | BLM                      | I - II                    |                         | grasslands                          |
| McCown's Longspur               | <i>Calcarius mccownii</i>                   | G4          | <b>S3B</b> | BLM                      | II - III                  | ≥ 20% global            | grasslands                          |
| Mountain Plover                 | <i>Charadrius montanus</i>                  | <b>G3</b>   | S2B        | BLM                      | I - III                   | ≥ 20% global            | grasslands                          |
| Nelson's Sharp-tailed Sparrow   | <i>Ammodramus nelsoni</i>                   | G5          | S3B        | BLM                      | I - I                     | ≤ 5% state              | prairie wetlands                    |
| Northern Goshawk                | <i>Accipiter gentilis</i>                   | G5          | <b>S3</b>  | BLM                      | II - I                    |                         | mixed conifer forest                |
| Peregrine Falcon                | <i>Falco peregrinus</i>                     | G4          | <b>S3</b>  | USFWS - DM, USFS, BLM    | II - III                  |                         | cliffs                              |
| <b>Pileated Woodpecker</b>      | <i>Dryocopus pileatus</i>                   | G5          | S3         |                          | II - III                  |                         | conifer forests with large trees    |
| Pinyon Jay                      | <i>Gymnorhinus cyanocephalus</i>            | G5          | S3         |                          | II - III                  |                         | pinyon pine-juniper woodlands       |
| Piping Plover                   | <i>Charadrius melodus</i>                   | G3          | S2B        | USFWS - T                | I - III                   |                         | prairie lake and river shorelines   |
| Red-headed Woodpecker           | <i>Melanerpes erythrocephalus</i>           | G5          | S3B        | BLM                      | II - II                   |                         | riparian forest                     |
| Sage Sparrow                    | <i>Amphispiza belli</i>                     | G5          | <b>S3B</b> | BLM                      | III - III                 |                         | sagebrush                           |
| Sage Thrasher                   | <i>Oreoscoptes montanus</i>                 | G5          | S3B        | BLM                      | III - III                 |                         | sagebrush                           |
| Sedge Wren                      | <i>Cistothorus platensis</i>                | G5          | <b>S3B</b> | BLM                      | I - I                     | ≤ 5% state              | prairie wetlands                    |
| Sharp-tailed Grouse (Columbian) | <i>Tympanuchus phasianellus columbianus</i> | G4T3        | S1         |                          | I - I                     |                         | grasslands                          |
| Sprague's Pipit                 | <i>Anthus spragueii</i>                     | G4          | <b>S3B</b> | BLM                      | II - III                  |                         | grasslands                          |
| Trumpeter Swan                  | <i>Cygnus buccinator</i>                    | G4          | <b>S3</b>  | BLM                      | I - III                   |                         | shallow lakes and wetlands          |
| <b>Veery</b>                    | <i>Catharus fuscescens</i>                  | G5          | S3B        |                          | II - III                  |                         | riparian forests / shrubby habitats |
| White-faced Ibis                | <i>Plegadis chihi</i>                       | G5          | <b>S3B</b> | BLM                      | II - I                    |                         | wetland/lake w/ emergent vegetation |
| White-tailed Ptarmigan          | <i>Lagopus leucurus</i>                     | G5          | S3         |                          | II - III                  |                         | alpine                              |
| Whooping Crane                  | <i>Grus americana</i>                       | G1          | S1M        | USFWS - E                | I - III                   |                         | wetlands                            |
| <b>Winter Wren</b>              | <i>Troglodytes troglodytes</i>              | G5          | S3         |                          | II - III                  |                         | conifer / riparian forests          |
| Yellow Rail                     | <i>Coturnicops noveboracensis</i>           | G4          | <b>S3B</b> | BLM                      | I - I                     | ≤ 5% state              | wetlands                            |
| Yellow-billed Cuckoo            | <i>Coccyzus americanus</i>                  | G5          | S3B        | USFWS - C (w. pop.), BLM | II - I                    |                         | prairie riparian forests            |
| <b>Reptiles</b>                 |   |             |            |                          |                           |                         |                                     |
| Common Sagebrush Lizard         | <i>Sceloporus graciosus</i>                 | G5          | S3         |                          | II - II                   |                         | rock outcrops                       |
| Greater Short-horned Lizard     | <i>Phrynosoma hernandesi</i>                | G5          | S3         | USFS, BLM                | II - II                   |                         | sandy/gravelly soils                |
| Milksnake                       | <i>Lampropeltis triangulum</i>              | G5          | S2         | USFS, BLM                | I - I                     |                         | rock outcrops                       |
| Northern Alligator Lizard       | <i>Elgaria coerulea</i>                     | G5          | S3         |                          | II - I                    |                         | talus/rock outcrops                 |
| Smooth Green Snake              | <i>Opheodrys vernalis</i>                   | G5          | S2         |                          | I - I                     | ≤ 5% state              | wetlands                            |
| Snapping Turtle                 | <i>Chelydra serpentina</i>                  | G5          | S3         | BLM                      | I - I                     |                         | prairie streams and rivers          |
| Spiny Softshell                 | <i>Apalone spinifera</i>                    | G5          | S3         | BLM                      | I - I                     |                         | prairie rivers & larger streams     |
| Western Hognose Snake           | <i>Heterodon nasicus</i>                    | G5          | S2         | USFS, BLM                | I - I                     |                         | floodplain friable soils            |
| Western Skink                   | <i>Eumeces skiltonianus</i>                 | G5          | S3         |                          | II - I                    |                         | grasslands / open conifer forest    |

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| Common Name                        | Scientific Name                             | Global Rank | State Rank  | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                                |
|------------------------------------|---|-------------|-------------|----------------|---------------------------|-------------------------|--|
| <b>Amphibians</b>                  |   |             |             |                |                           |                         |  |
| Coeur d'Alene Salamander           | <i>Plethodon idahoensis</i>                 | G4          | S2          | USFS, BLM      | I - I                     | *                       | spring/seep, waterfall, fractured rock |
| Great Plains Toad                  | <i>Bufo cognatus</i>                        | G5          | S2          | USFS, BLM      | II - I                    |                         | wetlands, floodplain pools             |
| Idaho Giant Salamander             | <i>Dicamptodon aterrimus</i>                | G3          | S2          | USFS           | IV - III                  | ≤ 5% state              | mountain streams/moist conifer forest  |
| Northern Leopard Frog              | <i>Rana pipiens</i> (Intermountain valleys) | G5          | S1          | USFS, BLM      | I - I                     |                         | wetlands, floodplain pools             |
| Plains Spadefoot                   | <i>Spea bombifrons</i>                      | G5          | S3          | USFS, BLM      | II - I                    |                         | wetlands, floodplain pools             |
| Western Toad                       | <i>Bufo boreas</i>                          | G4          | S2          | USFS, BLM      | I - I                     |                         | wetlands, lakes, floodplain pools      |
| <b>Fish</b>                        |   |             |             |                |                           |                         |  |
| Arctic Grayling                    | <i>Thymallus arcticus</i>                   | G5          | S1          | BLM            | I - III                   | ≤ 5% state              | mountain rivers, lakes                 |
| Blue Sucker                        | <i>Cycleptus elongatus</i>                  | G3G4        | S2S3        | BLM            | I - III                   |                         | large prairie rivers                   |
| Bull Trout                         | <i>Salvelinus confluentus</i>               | G3          | S2          | USFWS - T      | I - III                   |                         | mountain streams, rivers, lakes        |
| Columbia River Redband Trout       | <i>Oncorhynchus mykiss gairdneri</i>        | G5T4        | S1          | USFS           | I - III                   | ≤ 5% state              | mountain streams, rivers               |
| Lake Trout (Native)                | <i>Salvelinus namaycush</i>                 | G5          | S2          |                | I - I                     | ≤ 5% state              | deep mountain lakes                    |
| Northern Redbelly X Finescale Dace | <i>Phoxinus eos x Phoxinus neogaeus</i>     | HYB         | S3          | BLM            | II - II                   |                         | small prairie streams                  |
| Paddlefish                         | <i>Polyodon spathula</i>                    | G4          | S1S2        | BLM            | I - III                   | ≤ 5% state              | large prairie rivers                   |
| Pallid Sturgeon                    | <i>Scaphirhynchus albus</i>                 | G2          | S1          | USFWS - E      | I - II                    | ≤ 5% state              | large prairie rivers                   |
| Pearl Dace                         | <i>Margariscus margarita</i>                | G5          | S2          | BLM            | I - I                     | ≤ 5% state              | small prairie streams                  |
| Sauger                             | <i>Sander canadensis</i>                    | G5          | S2          | BLM            | I - III                   |                         | large prairie rivers                   |
| Shortnose Gar                      | <i>Lepisosteus platostomus</i>              | G5          | S1          |                | I - I                     | ≤ 5% state              | large prairie rivers                   |
| Sicklefin Chub                     | <i>Macrhybopsis meeki</i>                   | G3          | S1          |                | I - II                    | ≤ 5% state              | large prairie rivers                   |
| Spoonhead Sculpin                  | <i>Cottus ricei</i>                         | G5          | S3          |                | II - I                    | ≤ 5% state              | mountain streams, rivers, lakes        |
| Sturgeon Chub                      | <i>Macrhybopsis gelida</i>                  | G3          | <b>S2S3</b> | USFS, BLM      | I - II                    |                         | large prairie rivers                   |
| Torrent Sculpin                    | <i>Cottus rhotheus</i>                      | G5          | S3          |                | II - I                    | ≤ 5% state              | mountain streams                       |
| Trout-perch                        | <i>Percopsis omiscomaycus</i>               | G5          | S2          |                | I - I                     |                         | deep lakes, mountain streams           |
| Westslope Cutthroat Trout          | <i>Oncorhynchus clarki lewisi</i>           | G4T3        | S2          | USFS, BLM      | I - III                   |                         | mountain streams, rivers, lakes        |
| White Sturgeon                     | <i>Acipenser transmontanus</i>              | G4          | S1          | USFWS - E      | I - III                   | ≤ 5% state              | large mountain rivers                  |
| Yellowstone Cutthroat Trout        | <i>Oncorhynchus clarki bouvieri</i>         | G4T2        | S2          | USFS, BLM      | I - III                   |                         | mountain streams, rivers, lakes        |

## Invertebrates

|                          |                                  |      |      |  |   |            |                                    |
|--------------------------|----------------------------------|------|------|--|---|------------|------------------------------------|
| <b>Mollusks</b>          |                                  |      |      |  |   |            |                                    |
| A Spring Snail           | <i>Pyrgulopsis bedfordensis</i>  | G1   | S1   |  | - | *          | springs                            |
| Alpine Mountainsnail     | <i>Oreohelix alpina</i>          | G1   | S1   |  | - | ≤ 5% state | limestone talus, alpine            |
| Berry's Mountainsnail    | <i>Oreohelix strigosa berryi</i> | G5T2 | S1S2 |  | - | ≤ 5% state | limestone talus                    |
| Bitterroot Mountainsnail | <i>Oreohelix amariradix</i>      | G1G2 | S1S2 |  | - | ≤ 5% state | talus, dry conifer forests         |
| Carinate Mountainsnail   | <i>Oreohelix elrodi</i>          | G1   | S1   |  | - | ≤ 5% state | talus, mixed mesic conifer forests |
| Columbia Pebblesnail     | <i>Fluminicola fuscus</i>        | G2   | SH   |  | - |            | mountain rivers                    |
| Gallatin Mountainsnail   | <i>Oreohelix yavapai mariae</i>  | G4T1 | S1   |  | - | ≤ 5% state | limestone talus                    |

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| Common Name                          | Scientific Name                 | Global Rank | State Rank | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                             |
|--------------------------------------|---------------------------------|-------------|------------|----------------|---------------------------|-------------------------|-------------------------------------|
| <b>Mollusks (continued)</b>          |                                 |             |            |                |                           |                         |                                     |
| Humped Coin                          | <i>Polygyrella polygyrella</i>  | G3          | S1S2       |                | -                         | ≤ 5% state              | moist conifer forests               |
| Keeled Mountainsnail                 | <i>Oreohelix carinifera</i>     | G1          | S1         |                | -                         | ≤ 5% state              | limestone, dry conifer forests      |
| Lake Disc                            | <i>Discus brunsoni</i>          | G1          | S1         |                | -                         | ≤ 5% state              | talus, mesic conifer forests        |
| Large-mantle Physa                   | <i>Physa megalochlamys</i>      | G3          | S1         |                | -                         | *                       | wetland/lake w/ emergent vegetation |
| Lyre Mantleslug                      | <i>Udosarx lyrata</i>           | G2          | S1         |                | -                         | ≤ 5% state              | moist conifer forests               |
| Magnum Mantleslug                    | <i>Magnipelta mycophaga</i>     | G3          | S2S3       |                | -                         |                         | moist conifer forests               |
| Marbled Jumping-slug                 | <i>Hemphillia danielsi</i>      | G2G3        | S1S2       |                | -                         | ≤ 5% state              | mesic/moist conifer forests         |
| Pale Jumping-slug                    | <i>Hemphillia camelus</i>       | G4          | S1S2       |                | -                         | ≤ 5% state              | mesic/moist conifer forests         |
| Pygmy Slug                           | <i>Kootenaia burkei</i>         | G2          | S1S2       |                | -                         | ≤ 5% state              | moist conifer forests               |
| Reticulate Taildropper               | <i>Prophysaon andersoni</i>     | G5          | S1S2       |                | -                         | ≤ 5% state              | moist conifer forests               |
| Robust Lancetooth                    | <i>Haplotrema vancouverense</i> | G5          | S1S2       |                | -                         | ≤ 5% state              | moist conifer forests               |
| Rocky Mountain Capshell              | <i>Acroloxus coloradensis</i>   | G3          | S1         |                | -                         | *                       | lakes                               |
| Rocky Mountain Duskysnail            | <i>Colligyrus greggi</i>        | G4          | S1         |                | -                         | *                       | springs, cold mountain streams      |
| Sheathed Slug                        | <i>Zacoleus idahoensis</i>      | G3G4        | S2S3       |                | -                         |                         | mesic/moist conifer forests         |
| Shortface Lanx                       | <i>Fisherola nuttalli</i>       | G2          | SH         |                | -                         |                         | lakes                               |
| Smoky Taildropper                    | <i>Prophysaon humile</i>        | G3          | S2S3       |                | -                         |                         | moist conifer forests               |
| Striate Disc                         | <i>Discus shimekii</i>          | G5          | S1         |                | -                         |                         | aspen                               |
| Western Pearlshell                   | <i>Margaritifera falcata</i>    | G4G5        | S2         |                | -                         |                         | mountain streams/rivers             |
| <b>Crustaceans</b>                   |                                 |             |            |                |                           |                         |                                     |
| A cave obligate Amphipod             | <i>Stygobromus montanensis</i>  | G1G2        | S1S2       |                | -                         | *                       | cave springs                        |
| A cave obligate Amphipod             | <i>Stygobromus obscurus</i>     | G1G2        | S1S2       |                | -                         | *                       | cave springs                        |
| A cave obligate Amphipod             | <i>Stygobromus puteanus</i>     | G1G2        | S1S2       |                | -                         | *                       | cave springs                        |
| A cave obligate Amphipod             | <i>Stygobromus tritus</i>       | G1G2        | S1S2       |                | -                         | *                       | cave springs                        |
| A cave obligate Isopod               | <i>Salmasellus steganothrix</i> | G2G3        | S1S2       |                | -                         | *                       | cave springs                        |
| Glacier Amphipod                     | <i>Stygobromus glacialis</i>    | G1G3        | S1S2       |                | -                         | *                       | cave springs                        |
| <b>Insects</b>                       |                                 |             |            |                |                           |                         |                                     |
| <b>Beetles</b>                       |                                 |             |            |                |                           |                         |                                     |
| Brown's Microcylloepus Riffle Beetle | <i>Microcylloepus browni</i>    | G1          | S1         |                | -                         | *                       | springs                             |
| Warm Spring Zaitzevian Riffle Beetle | <i>Zaitzevia thermae</i>        | G1          | S1         |                | -                         | *                       | springs                             |
| <b>Butterflies</b>                   |                                 |             |            |                |                           |                         |                                     |
| Alberta Fritillary                   | <i>Boloria alberta</i>          | G3          | S2S3       |                | -                         | ≤ 5% state              | alpine                              |
| Frigga Fritillary                    | <i>Boloria frigga</i>           | G5          | S1S2       |                | -                         |                         | montane wetlands                    |
| Gillett's Checkerspot                | <i>Euphydryas gillettii</i>     | G2G3        | S2         |                | -                         |                         | wet meadows                         |
| Gray Comma                           | <i>Polygonia progne</i>         | G4G5        | S2         |                | -                         |                         | parklands                           |
| Magdalena Alpine                     | <i>Erebia magdalena</i>         | G5          | S2         |                | -                         | ≤ 5% state              | alpine                              |

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| Common Name                        | Scientific Name                    | Global Rank | State Rank | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                         |
|------------------------------------|------------------------------------|-------------|------------|----------------|---------------------------|-------------------------|---------------------------------|
| <b>Insects</b> (continued)         |                                    |             |            |                |                           |                         |                                 |
| <b>Butterflies</b> (continued)     |                                    |             |            |                |                           |                         |                                 |
| Ottoe Skipper                      | <i>Hesperia ottoe</i>              | G3G4        | S2S3       |                | -                         |                         | grasslands                      |
| <b>Caddisflies</b>                 |                                    |             |            |                |                           |                         |                                 |
| A Rhyacophilan Caddisfly           | <i>Rhyacophila ebria</i>           | G2G3        | S1         |                | -                         | *                       | alpine mountain streams         |
| A Rhyacophilan Caddisfly           | <i>Rhyacophila gemona</i>          | G2G3        | S2         |                | -                         | *                       | forested mountain springs       |
| A Rhyacophilan Caddisfly           | <i>Rhyacophila rickeri</i>         | G2G3        | S2         |                | -                         | *                       | forested mountain springs       |
| A Rhyacophilan Caddisfly           | <i>Rhyacophila glaciera</i>        | G3          | S1         |                | -                         | *                       | alpine mountain streams         |
| A Rhyacophilan Caddisfly           | <i>Rhyacophila newelli</i>         | G2          | S2         |                | -                         | *                       | alpine mountain streams         |
| A Rhyacophilan Caddisfly           | <i>Rhyacophila potteri</i>         | G1G2        | S2         |                | -                         | *                       | forested mountain springs       |
| Alexander's Rhyacophilan Caddisfly | <i>Rhyacophila alexanderi</i>      | G2          | S2         |                | -                         | *                       | mountain/alpine streams         |
| NRMR Caddisfly <sup>3</sup>        | <i>Goereilla baumanni</i>          | <b>G2</b>   | S2         |                | -                         | *                       | forested mountain springs       |
| NRMR Caddisfly <sup>3</sup>        | <i>Rossiana montana</i>            | G2G3        | S2         |                | -                         | *                       | forested mountain springs       |
| <b>Damselflies</b>                 |                                    |             |            |                |                           |                         |                                 |
| Last Best Place Damselfly          | <i>Enallagma optimolocus</i>       | G1G3Q       | S1S3       |                | -                         | *                       | wetlands                        |
| Subarctic Bluet                    | <i>Coenagrion interrogatum</i>     | G5          | S1S2       |                | -                         | ≤ 5% state              | wetlands                        |
| <b>Dragonflies</b>                 |                                    |             |            |                |                           |                         |                                 |
| Boreal Whiteface                   | <i>Leucorrhinia borealis</i>       | G5          | S1         |                | -                         |                         | wetlands                        |
| Brimstone Clubtail                 | <i>Stylurus intricatus</i>         | G4          | S1         |                | -                         |                         | large prairie rivers            |
| Brush-tipped Emerald               | <i>Somatochlora walshii</i>        | G5          | S1S2       |                | -                         |                         | wetlands                        |
| Eastern Ringtail                   | <i>Erpetogomphus designatus</i>    | G5          | S1         |                | -                         | ≤ 5% state              | large prairie rivers            |
| Subarctic Darner                   | <i>Aeshna subarctica</i>           | G5          | S1S2       |                | -                         |                         | wetlands                        |
| Western Pondhawk                   | <i>Erythemis collocata</i>         | G5          | S1S2       |                | -                         |                         | wetlands                        |
| <b>Mayflies</b>                    |                                    |             |            |                |                           |                         |                                 |
| A Mayfly                           | <i>Caenis youngi</i>               | G4          | S2         |                | -                         |                         | sloughs/backwaters              |
| A Mayfly                           | <i>Lachlania saskatchewanensis</i> | G4          | S1         |                | -                         | *                       | large prairie rivers            |
| A Mayfly                           | <i>Raptoheptagenia cruentata</i>   | G4          | S2         |                | -                         | *                       | large prairie rivers            |
| A Sand-dwelling Mayfly             | <i>Anepeorus rusticus</i>          | G2          | S1         |                | -                         | *                       | large prairie rivers            |
| A Sand-dwelling Mayfly             | <i>Homoeoneuria alleni</i>         | G4          | S2         |                | -                         | *                       | large prairie rivers            |
| A Sand-dwelling Mayfly             | <i>Macdunnoa nipawinia</i>         | G2G3        | S2         |                | -                         | *                       | large prairie rivers            |
| Lolo Mayfly                        | <i>Caurinella idahoensis</i>       | G3          | S2         |                | -                         | *                       | small forested mountain streams |
| <b>Springtails</b>                 |                                    |             |            |                |                           |                         |                                 |
| A Springtail                       | <i>Oncopodura cruciata</i>         | G1G2        | S1S2       |                | -                         | ≤ 5% state              | caves                           |
| <b>Stoneflies</b>                  |                                    |             |            |                |                           |                         |                                 |
| A Stonefly                         | <i>Isocapnia crinita</i>           | G4          | S2         |                | -                         | *                       | alpine mountain streams         |
| A Stonefly                         | <i>Isocapnia integra</i>           | G4          | S2         |                | -                         | *                       | alpine mountain streams         |

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<sup>3</sup> NRMR = Northern Rocky Mountain Refugium



| Common Name                                 | Scientific Name              | Global Rank | State Rank | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                            |
|---|------------------------------|-------------|------------|----------------|---------------------------|-------------------------|------------------------------------|
| <b>Insects (continued)</b>                  |                              |             |            |                |                           |                         |                                    |
| <b>Stoneflies (continued)</b>               |                              |             |            |                |                           |                         |                                    |
| A Stonefly                                  | <i>Isoperla petersoni</i>    | G5          | S2         |                | -                         | ≤ 5% state              | alpine mountain streams            |
| A Stonefly                                  | <i>Utacapnia columbiana</i>  | G4          | S2         |                | -                         | *                       | alpine mountain streams            |
| A Stonefly                                  | <i>Zapada cordillera</i>     | G3          | S2         |                | -                         | *                       | alpine mountain streams            |
| Clearwater Roachfly                         | <i>Soliperla salish</i>      | G2          | S2         |                | -                         | *                       | small forested mountain streams    |
| Meltwater Lednian Stonefly                  | <i>Lednia tumana</i>         | G1          | S1         |                | -                         | *                       | alpine streams                     |
| NRMR Stonefly <sup>3</sup>                  | <i>Soyedina potteri</i>      | <b>G2</b>   | <b>S2</b>  |                | -                         | *                       | small forested mountain streams    |
| Western Glacier Stonefly                    | <i>Zapada glacier</i>        | G2          | S1         |                | -                         | *                       | alpine streams                     |
| <b>Other - Spiders, Sponges, Millipedes</b> |                              |             |            |                |                           |                         |                                    |
| A cave obligate Harvestman                  | <i>Cryptobunus cavicolus</i> | G1G2        | S1S2       |                | -                         | ≤ 5% state              | caves                              |
| A Freshwater Sponge                         | <i>Ephydatia cooperensis</i> | G1G3        | S1S3       |                | -                         | *                       | lakes                              |
| A Millipede                                 | <i>Adityla cucullata</i>     | G1G3        | S1S3       |                | -                         |                         | dry mixed conifer forest clearings |
| A Millipede                                 | <i>Austrotyla montani</i>    | G1G3        | S1S3       |                | -                         |                         | mixed conifer forests              |
| A Millipede                                 | <i>Corypus cochlearis</i>    | G1G3        | S1S3       |                | -                         |                         | mixed conifer forests              |
| A Millipede                                 | <i>Endopus parvipes</i>      | G1G3        | S1S3       |                | -                         |                         | subalpine mixed conifer forests    |
| A Millipede                                 | <i>Lophomus laxus</i>        | G1G3        | S1S3       |                | -                         |                         | mixed conifer forests              |
| A Millipede                                 | <i>Orophe cabinetus</i>      | G1G3        | S1S3       |                | -                         |                         | moist mixed conifer forests        |
| A Millipede                                 | <i>Orthogmus oculatus</i>    | G1G3        | S1S3       |                | -                         |                         | mixed conifer forests              |
| A Millipede                                 | <i>Taiyutyla curvata</i>     | G1G3        | S1S3       |                | -                         |                         | moist mixed conifer forests        |

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# POTENTIAL SPECIES OF CONCERN

## Vertebrates

| Common Name               | Scientific Name                    | Global Rank | State Rank   | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                              |
|---------------------------|------------------------------------|-------------|--------------|----------------|---------------------------|-------------------------|--------------------------------------|
| <b>Mammals</b>            |                                    |             |              |                |                           |                         |                                      |
| Hayden's Shrew            | <i>Sorex haydeni</i>               | G4          | S3S4         |                | II - II                   |                         | sagebrush/grasslands                 |
| Hoary Marmot              | <i>Marmota calagata</i>            | G5          | S3S4         |                | I - I                     |                         | alpine/subalpine meadow/rock outcrop |
| Idaho Pocket Gopher       | <i>Thomomys idahoensis</i>         | G4          | S2S4         |                | II - I                    | ≥ 20% global            | sagebrush/grasslands in deep soils   |
| Silver-haired Bat         | <i>Lasionycteris noctivagans</i>   | G5          | <b>S4</b>    |                | II - II                   |                         | riparian and forest habitats         |
| Uinta Ground Squirrel     | <i>Spermophilus armatus</i>        | G5          | S3S4         |                | II - I                    |                         | subalpine meadows                    |
| Wyoming Ground Squirrel   | <i>Spermophilus elegans</i>        | G5          | S3S4         |                | II - I                    | ≥ 20% global            | sagebrush/grasslands, rock outcrops  |
| Yuma Myotis               | <i>Myotis yumanensis</i>           | G5          | S3S4         |                | II - II                   |                         | riparian and mixed forest habitats   |
| <b>Birds</b>              |                                    |             |              |                |                           |                         |                                      |
| <b>Barrow's Goldeneye</b> | <i>Bucephala islandica</i>         | G5          | S4           |                | III - III                 |                         | riparian forests                     |
| Black-and-white Warbler   | <i>Mniotilta varia</i>             | G5          | <b>S4B</b>   |                | II - I                    |                         | deciduous forests                    |
| Broad-tailed Hummingbird  | <i>Selasphorus platycercus</i>     | G5          | <b>S4B</b>   |                | II - II                   | ≤ 5% state              | montane shrublands/woodlands         |
| Cassin's Kingbird         | <i>Tyrannus vociferans</i>         | G5          | <b>S4B</b>   |                | II - II                   |                         | grasslands                           |
| Chimney Swift             | <i>Chaetura pelagica</i>           | G5          | S3S4B        |                | III - I                   |                         | human habitation                     |
| Common Poorwill           | <i>Phalaenoptilus nuttallii</i>    | G5          | <b>S4B</b>   |                | III - I                   |                         | open conifer woodlands               |
| Dickcissel                | <i>Spiza americana</i>             | G5          | <b>S4B</b>   | BLM            | II - II                   |                         | tall grasslands                      |
| Eastern Bluebird          | <i>Sialia sialis</i>               | G5          | <b>S4B</b>   |                | II - I                    |                         | prairie woodlands                    |
| Eastern Screech-Owl       | <i>Megascops asio</i>              | G5          | S3S4         |                | III - II                  |                         | prairie riparian forests             |
| <b>Hooded Merganser</b>   | <i>Lophodytes cucullatus</i>       | G5          | S4           |                | II - III                  |                         | riparian forests                     |
| Northern Hawk Owl         | <i>Surnia ulula</i>                | G5          | <b>S4</b>    |                | III - I                   | ≤ 5% state              | conifer forest                       |
| Ovenbird                  | <i>Seiurus aurocapilla</i>         | G5          | <b>S4B</b>   |                | III - III                 |                         | mixed conifer forests                |
| Plumbeous Vireo           | <i>Vireo plumbeus</i>              | G5          | S3S4B        |                | -                         |                         | conifer forest and riparian          |
| Rufous Hummingbird        | <i>Selasphorus rufus</i>           | G5          | S4B          |                | III - II                  |                         | open and brushy forests              |
| Short-eared Owl           | <i>Asio flammeus</i>               | G5          | <b>S4</b>    |                | III - II                  |                         | grasslands                           |
| Swainson's Hawk           | <i>Buteo swainsoni</i>             | G5          | <b>S4B</b>   | BLM            | II - II                   |                         | sage/grassland w/ woody vegetation   |
| Tennessee Warbler         | <i>Vermivora peregrina</i>         | G5          | <b>S3S4B</b> |                | III - III                 |                         | mixed conifer forests                |
| Western Screech-Owl       | <i>Megascops kennicottii</i>       | G5          | S3S4         |                | III - III                 |                         | western riparian forest              |
| <b>Amphians</b>           |                                    |             |              |                |                           |                         |                                      |
| Northern Leopard Frog     | <i>Rana pipiens</i> (Great Plains) | G5          | <b>S4</b>    | USFS, BLM      | I - I                     |                         | wetlands, floodplain pools           |
| <b>Fish</b>               |                                    |             |              |                |                           |                         |                                      |
| Brassy Minnow             | <i>Hybognathus hankinsoni</i>      | G5          | SU           |                | III - I                   |                         | small prairie rivers                 |
| Brook Stickleback         | <i>Culaea inconstans</i>           | G5          | SU           |                | III - III                 |                         | small prairie rivers                 |
| Burbot                    | <i>Lota lota</i>                   | G5          | SU           |                | I - II                    |                         | large rivers/lakes                   |
| Creek Chub                | <i>Semotilus atromaculatus</i>     | G5          | SU           |                | III - II                  |                         | small prairie rivers                 |

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| Common Name                 | Scientific Name                | Global Rank | State Rank | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                             |
|-----------------------------|--------------------------------|-------------|------------|----------------|---------------------------|-------------------------|-------------------------------------|
| <b>Fish (continued)</b>     |                                |             |            |                |                           |                         |                                     |
| Iowa Darter                 | <i>Etheostoma exile</i>        | G5          | SU         |                | III - I                   |                         | small prairie rivers                |
| Northern Redbelly Dace      | <i>Phoxinus eos</i>            | G5          | SU         |                | III - II                  |                         | small prairie rivers                |
| Plains Minnow               | <i>Hybognathus placitus</i>    | G4          | SU         |                | III - I                   |                         | small & large prairie rivers        |
| Pygmy Whitefish             | <i>Prosopium coulteri</i>      | G5          | SU         |                | III - III                 | ≤ 5% state              | lakes                               |
| <b>Invertebrates</b>        |                                |             |            |                |                           |                         |                                     |
| <b>Mollusks</b>             |                                |             |            |                |                           |                         |                                     |
| Fir Pinwheel                | <i>Radiodiscus abietum</i>     | G4          | S3S4       |                | -                         |                         | moist conifer forests               |
| Threeridge Valvata          | <i>Valvata tricarnata</i>      | G5          | S2S3       |                | -                         | ≤ 5% state              | large coldwater rivers              |
| <b>Insects</b>              |                                |             |            |                |                           |                         |                                     |
| <b>Beetles</b>              |                                |             |            |                |                           |                         |                                     |
| Coppery Tiger Beetle        | <i>Cicindela cuprascens</i>    | G5          | S3         |                | -                         |                         | sandy beaches                       |
| Sandy Tiger Beetle          | <i>Cicindela limbata</i>       | <b>G4</b>   | S3         |                | -                         |                         | sandy sagebrush/grasslands          |
| <b>Butterflies</b>          |                                |             |            |                |                           |                         |                                     |
| Astarte Fritillary          | <i>Boloria astarte</i>         | G5          | S2S3       |                | -                         | ≤ 5% state              | alpine                              |
| Colorado Alpine             | <i>Erebia callias</i>          | G5          | S2S3       |                | -                         | ≤ 5% state              | alpine                              |
| Eyed Brown                  | <i>Satyrodes eurydice</i>      | G4          | S2S3       |                | -                         |                         | wetlands                            |
| Freija Fritillary           | <i>Boloria freija</i>          | G5          | S3S5       |                | -                         |                         | subalpine willows                   |
| Giant Sulphur               | <i>Colias gigantea</i>         | G5          | S3         |                | -                         |                         | montane willows                     |
| Indra Swallowtail           | <i>Papilio indra</i>           | G5          | S2S3       |                | -                         |                         | grasslands/rock outcrops            |
| Labrador Sulphur            | <i>Colias nastes</i>           | G5          | S2S3       |                | -                         |                         | alpine                              |
| Melissa Arctic              | <i>Oeneis melissa</i>          | G5          | S2S3       |                | -                         |                         | alpine                              |
| Mormon Metalmark            | <i>Apodemia mormo</i>          | G5          | S3S5       |                | -                         |                         | sagebrush/grasslands                |
| Northern Marble             | <i>Euchloe creusa</i>          | G5          | S1S3       |                | -                         | ≤ 5% state              | subalpine forest openings           |
| Red-disked Alpine           | <i>Erebia discoidalis</i>      | G5          | S3S5       |                | -                         |                         | grasslands                          |
| Rockslide Checkerspot       | <i>Chlosyne whitneyi</i>       | G4G5        | S3S5       |                | -                         |                         | alpine                              |
| Tawny Crescent              | <i>Phyciodes batesii</i>       | G4          | S2S3       |                | -                         |                         | grasslands                          |
| White Admiral               | <i>Limenitis arthemis</i>      | G5          | S2S3       |                | -                         |                         | riparian forest                     |
| White-veined Arctic         | <i>Oeneis bore</i>             | G5          | S2S3       |                | -                         | ≤ 5% state              | alpine                              |
| <b>Caddisflies</b>          |                                |             |            |                |                           |                         |                                     |
| An Agapetus Caddisfly       | <i>Agapetus montanus</i>       | G3          | S3         |                | -                         | ≥ 20% global            | valley/mountain forested streams    |
| NRMR Caddisfly <sup>3</sup> | <i>Sericostriata surdickae</i> | G2G3        | S3         |                | -                         | *                       | small forested mountain streams     |
| <b>Damselflies</b>          |                                |             |            |                |                           |                         |                                     |
| Alkali Bluet                | <i>Enallagma clausum</i>       | G5          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Arroyo Bluet                | <i>Enallagma praevarum</i>     | G5          | S3S5       |                | -                         |                         | wetland/lake w/ emergent vegetation |

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| Common Name                    | Scientific Name                    | Global Rank | State Rank | Federal Status | CFWCS Status <sup>1</sup> | Range Note <sup>2</sup> | Habitat                             |
|--------------------------------|------------------------------------|-------------|------------|----------------|---------------------------|-------------------------|-------------------------------------|
| <b>Insects (continued)</b>     |                                    |             |            |                |                           |                         |                                     |
| <b>Damselflies (continued)</b> |                                    |             |            |                |                           |                         |                                     |
| Emma's Dancer                  | <i>Argia emma</i>                  | G5          | S3S5       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Familiar Bluet                 | <i>Enallagma civile</i>            | G5          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Paiute Dancer                  | <i>Argia alberta</i>               | G4          | S2S3       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Prairie Bluet                  | <i>Coenagrion angulatum</i>        | G5          | S1S3       |                | -                         |                         | small prairie streams/wetlands      |
| Vivid Dancer                   | <i>Argia vivida</i>                | G5          | S3S5       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| <b>Dragonflies</b>             |                                    |             |            |                |                           |                         |                                     |
| Black-tipped Darner            | <i>Aeshna tuberculifera</i>        | G4          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Blue-eyed Darner               | <i>Rhionaeshna multicolor</i>      | G5          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| California Darner              | <i>Rhionaeshna californica</i>     | G5          | S3S5       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Chalk-fronted Corporal         | <i>Ladona julia</i>                | G5          | S3S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Crimson-ringed Whiteface       | <i>Leucorrhinia glacialis</i>      | G5          | S3         |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Flame Skimmer                  | <i>Libellula saturata</i>          | G5          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Horned Clubtail                | <i>Argemphus cornutus</i>          | G4          | S2S4       |                | -                         |                         | large prairie rivers                |
| Hudsonian Emerald              | <i>Somatochlora hudsonica</i>      | G5          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Lake Darner                    | <i>Aeshna eremita</i>              | G5          | S3S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Lance-tipped Darner            | <i>Aeshna constricta</i>           | G5          | S1S3       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Mountain Emerald               | <i>Somatochlora semicircularis</i> | G5          | S3S5       |                | -                         |                         | wetlands                            |
| Ocellated Emerald              | <i>Somatochlora minor</i>          | G5          | S2S4       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Plains Clubtail                | <i>Gomphus externus</i>            | G5          | S2S4       |                | -                         |                         | large prairie rivers                |
| Pronghorn Clubtail             | <i>Gomphus graslinellus</i>        | G5          | S3S5       |                | -                         |                         | large prairie rivers                |
| Red-veined Meadowhawk          | <i>Sympetrum madidum</i>           | G4          | S2S3       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Ringed Emerald                 | <i>Somatochlora albicincta</i>     | G5          | S1S3       |                | -                         |                         | wetlands                            |
| Sedge Darner                   | <i>Aeshna juncea</i>               | G5          | S3S5       |                | -                         |                         | wetlands                            |
| Sinuous Snaketail              | <i>Ophiogomphus occidentis</i>     | G4          | S2S4       |                | -                         |                         | large cold rivers                   |
| Spiny Baskettail               | <i>Epiptera spinigera</i>          | G5          | S3S5       |                | -                         |                         | wetland/lake w/ emergent vegetation |
| Zigzag Darner                  | <i>Aeshna sitchensis</i>           | G5          | S2S3       |                | -                         |                         | large prairie rivers                |
| <b>Mayflies</b>                |                                    |             |            |                |                           |                         |                                     |
| A Sand-dwelling Mayfly         | <i>Anaetris eximia</i>             | G3          | S3         |                | -                         |                         | large prairie rivers                |
| NRMR Mayfly <sup>3</sup>       | <i>Caudatella edmundsi</i>         | G3          | S3         |                | -                         | ≥ 20% global            | small forested mountain streams     |
| <b>Sponges</b>                 |                                    |             |            |                |                           |                         |                                     |
| A Freshwater Sponge            | <i>Heteromeyenia baileyi</i>       | G5          | S1S3       |                | -                         |                         | lakes                               |

<sup>1</sup> Conservation Tier - Inventory Tier    <sup>2</sup> ≤ 5% state = species' current breeding range occupies ≤ 5% of Montana; and ≥ 20% global = ≥ 20% of species' current global breeding range is in Montana

<sup>3</sup> NRMR = Northern Rocky Mountain Refugium



# HABITAT ASSOCIATION SUMMARIES BY ANIMAL GROUP FOR SPECIES OF CONCERN AND POTENTIAL SPECIES OF CONCERN

## Mammals

|                          |     |
|--------------------------|-----|
| Sagebrush/Grassland..... | 38% |
| Riparian Forest.....     | 16% |
| Conifer Forest .....     | 11% |
| Rock Outcrop.....        | 11% |
| Wetlands.....            | 11% |
| Alpine.....              | 5%  |
| Other/Generalist.....    | 5%  |
| Caves.....               | 3%  |

## Birds

|                            |     |
|----------------------------|-----|
| Sagebrush/Grassland.....   | 23% |
| Conifer Forest .....       | 21% |
| Wetlands.....              | 16% |
| Riparian Forest.....       | 13% |
| Streams/Rivers/Lakes ..... | 12% |
| Other/Generalist.....      | 11% |
| Alpine.....                | 4%  |

## Reptiles

|                            |     |
|----------------------------|-----|
| Rock Outcrop.....          | 33% |
| Streams/Rivers/Lakes ..... | 33% |
| Other/Generalist.....      | 11% |
| Sagebrush/Grassland.....   | 11% |
| Wetlands.....              | 11% |

## Amphibians

|                            |     |
|----------------------------|-----|
| Wetlands.....              | 83% |
| Streams/Rivers/Lakes ..... | 17% |

## Fish

|                                    |     |
|------------------------------------|-----|
| Mountain Streams/Rivers/Lakes..... | 37% |
| Prairie Streams/Rivers/Lakes.....  | 56% |
| Large Rivers/Lakes.....            | 7%  |

## Invertebrates

|                            |     |
|----------------------------|-----|
| Streams/Rivers/Lakes ..... | 34% |
| Wetlands.....              | 26% |
| Conifer Forest .....       | 14% |
| Alpine.....                | 8%  |
| Caves.....                 | 6%  |
| Rock Outcrop.....          | 5%  |
| Sagebrush/Grassland.....   | 5%  |
| Other/Generalist.....      | 2%  |
| Riparian Forest.....       | 1%  |

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